Michigan Department of Transportation's
2008 Research Summit



Dynamic Late Lane Merge System

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- NES Worksafe (Give-Em Brake Inc.)
- Jam Logic - A Division of Traffic Technologies

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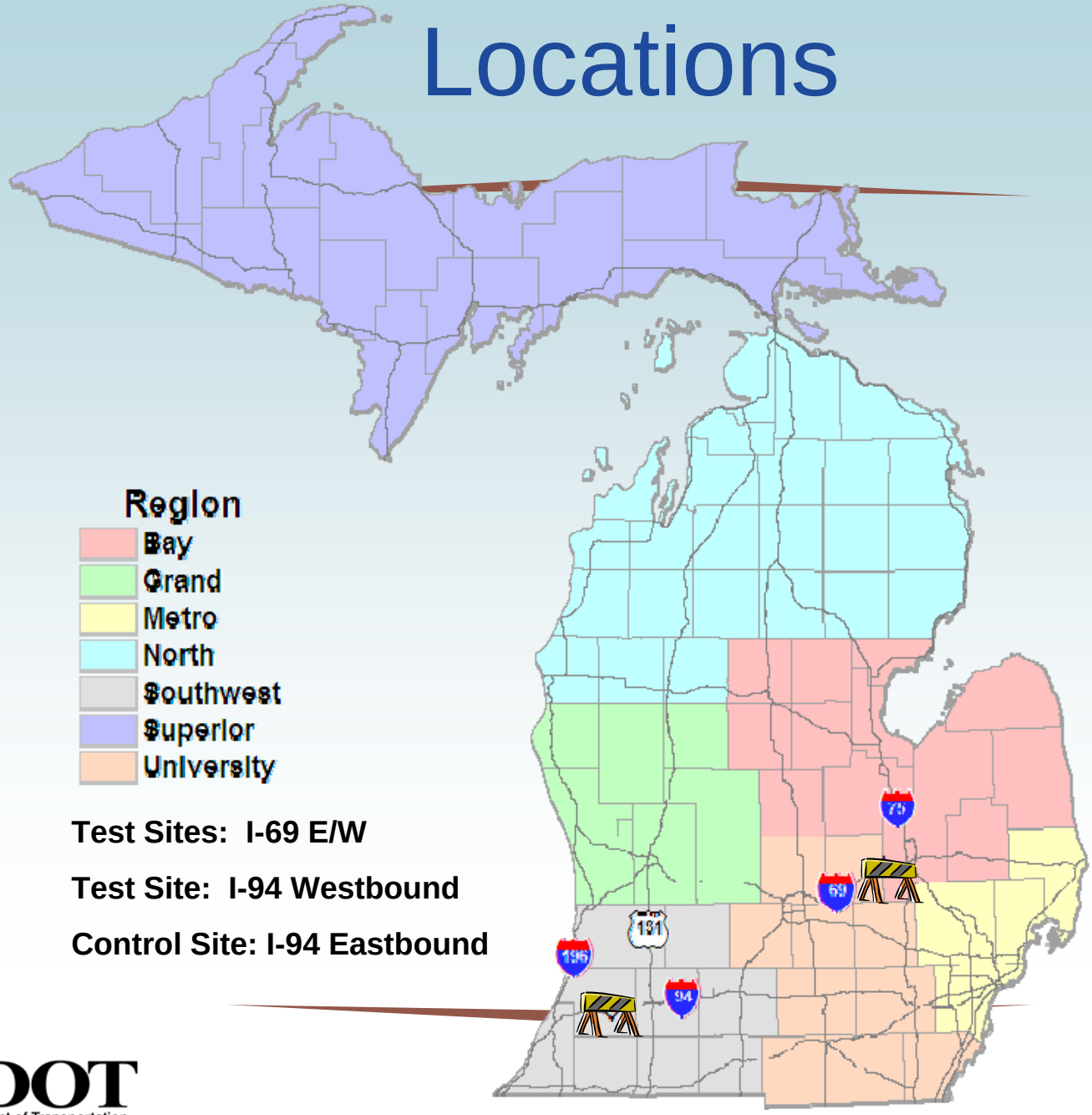
Problem Statement

- Shorten queue length
- Increase traffic capacity through work zone
- Reduce travel time
- Reduce aggressive driving
- Decrease the number of work zone related incidents

Locations



Test Sites: I-69 E/W

Test Site: I-94 Westbound

Control Site: I-94 Eastbound

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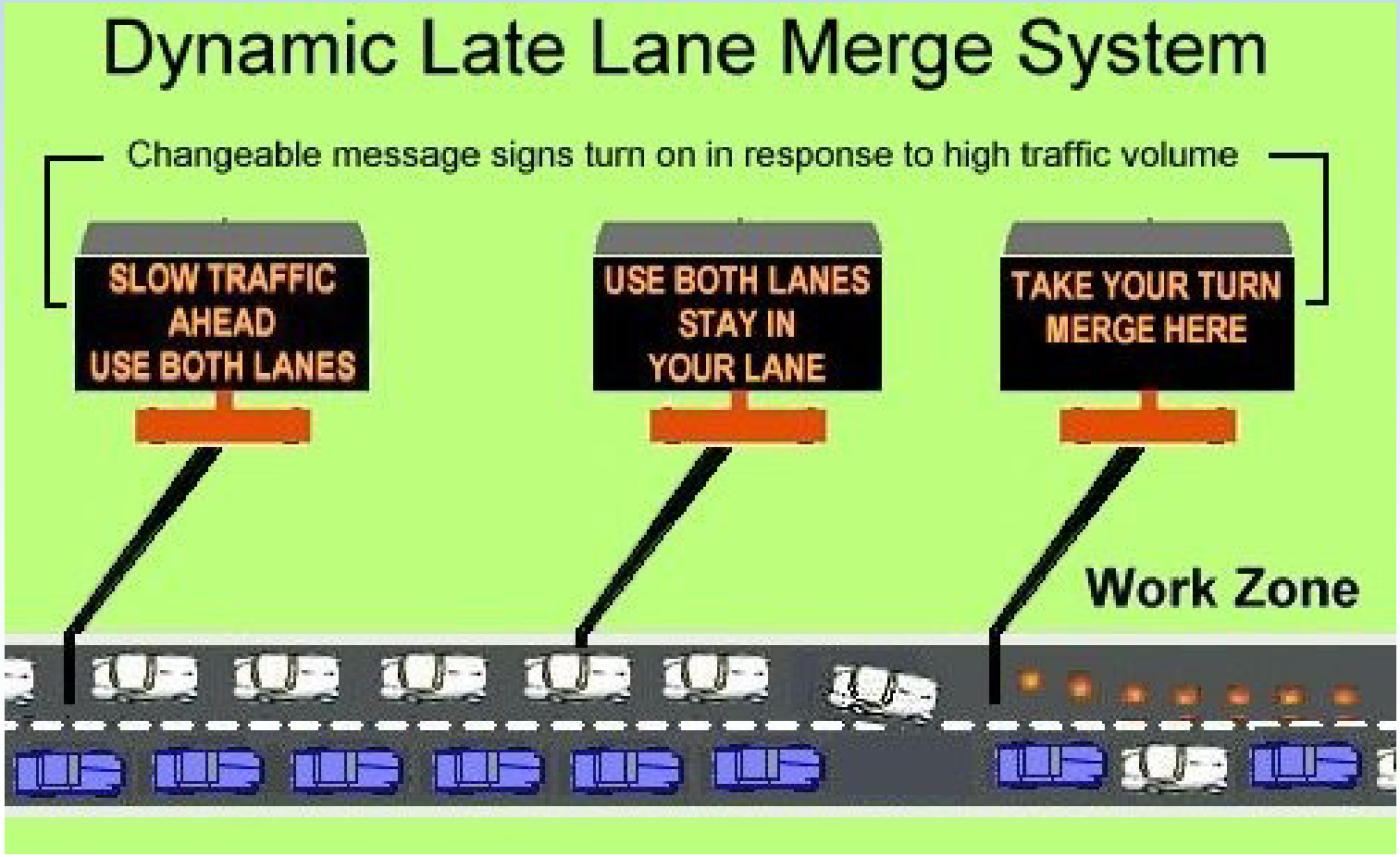
Background

- Early Lane Merge System
  - Uses dynamic signs activated based on congestion
  - Creates an enforceable no passing zone
- Late Merge
  - Uses static or dynamic signs
  - Creates a single defined merge point

Dynamic Late Lane Merge



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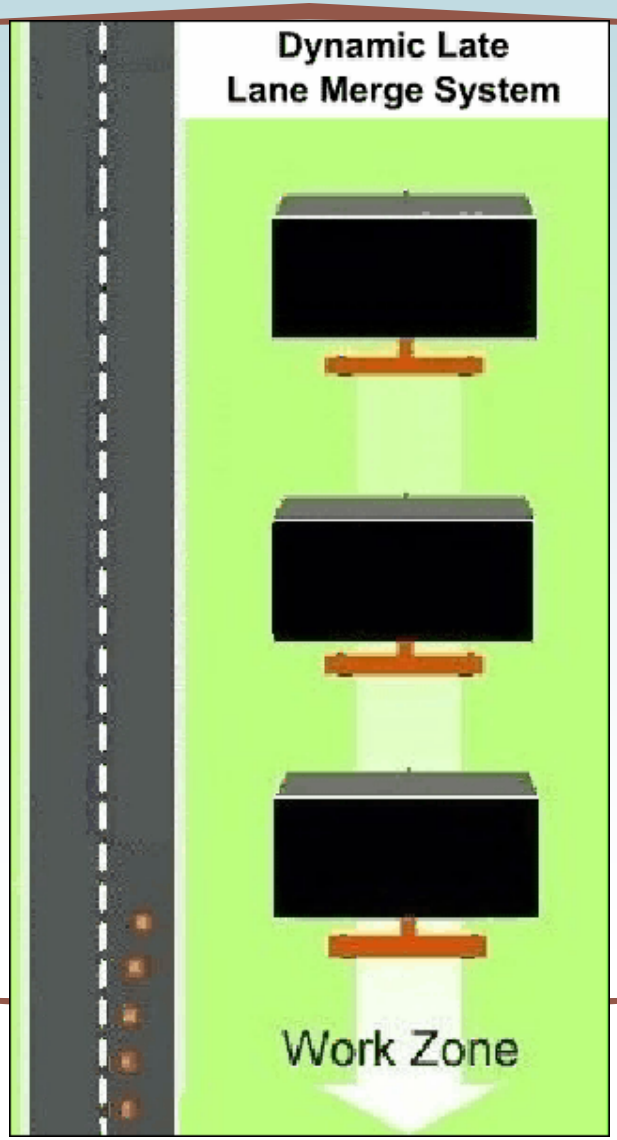
Dynamic Late Lane Merge



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Dynamic Late Lane Merge

- Research Shows
  - Use in moderate to high congested areas
  - Minimize delay
  - Minimize queue length
  - No reduction in accidents (limited data)

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Dynamic Late Lane Merge

- Cost
  - Approximately $74,000 for system furnished and operated
  - Travel Time savings greater than $4.85/ hour, the benefit to cost ratio is greater than one

Dynamic Late Lane Merge

- Benefits to MDOT
  - Have a proven tool to use in work zones to help to improve mobility and increase safety for the motorist and highway worker
  - Fits into the FHWA Work Zone Safety and Mobility Rule, effective Oct., 07
    - To improve safety and mobility in work zones by reducing congestion and traffic incidents.
  - System has gained nationwide acceptance
    - Featured in American Traffic Safety Services Association's "ITS Safety and Mobility Solutions"

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Questions

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